

REMARKS

STATUS OF CLAIMS:

Claims 1-27 are pending.

Claim 5 is allowed. The Examiner has provided contradicting information about the status of claims 3 and 4, since the Office Action Summary indicates claims 3 and 4 to be allowed while the body of the Office Action indicates claim 3 as being rejected as anticipated over Yamamoto et al. (U.S. Patent No. 5,897,296) and claim 4 as being objected to but allowable if rewritten to include all the limitations of the base and any intervening claims. Applicants Attorney contacted the Examiner to clarify the status, the Examiner stating that claim 3 is rejected and claim 4 objected to as set forth in the body of the Office Action.

Claims 1-3, 6-10, 15-21 and 27 are rejected.

Claims 4, 11-14 and 22-26 are indicated to be allowable if rewritten to include all the limitations of the base and any intervening claims.

Claims 7 and 19 are indicated to be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. §112, second paragraph and to include all the limitations of any base and any intervening claims.

By this Amendment, claims 1, 6-8, 11-12, 17-20, 22 and 27 have been amended. Therefore, claims 1-27 are now presented for consideration.

No new matter is presented in the foregoing claim amendments, accordingly, approval and entry of same are submitted to be proper and are respectfully solicited.

REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH:

In the Office Action, at page 2, items 2 and 3, claims 7 and 19 were rejected under 35 U.S.C. §112, second paragraph as being indefinite.

Claims 7 and 19 have been amended to overcome the rejections under 35 U.S.C. §112, second paragraph.

Reconsideration is respectfully requested.

ALLOWABLE SUBJECT MATTER:

In the Office Action, at page 7, item 9, claims 4, 11-14 and 22-26 are indicated to be allowable if rewritten to include all the limitations of the base and any intervening claims.

Claim 4.

Claim 4, which depends from claim 3, has not been rewritten in independent form, because claim 3 is submitted to be allowable as currently recited.

Claims 11-14 and 22-26

Claims 11, 12 and 22 are rewritten in independent form, and thus, are submitted to now be allowable.

Claims 13-14 and 23-26, which depend from claims 12 and 22, are submitted to be allowable for at least the same reasons as those of claim 12 and 22, as well as for the additional recitation therein.

In the Office Action, at page 7, item 10, claims 7 and 19 are indicated to be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. §112, second paragraph and to include all the limitations of all base and any intervening claims.

Claim 7

It is submitted that independent claim 7, indicated to be allowable if rewritten to overcome the rejection under 35 U.S.C. §112, is now allowable.

Claim 19

Claim 19, which depends from claim 18, has not been rewritten in independent form because claim 18 is submitted to be allowable as currently recited.

REJECTIONS UNDER 35 U.S.C. §102(b) and 35 U.S.C. §103(a):

In the Office Action, at pages 3-5, item 5, claims 1, 3, 8-10 and 15-17 are rejected under 35 U.S.C. §102(b) as being anticipated by Yamamoto et al. (U.S. Patent No. 5,897,296).

In the Office Action, at pages 5 and 6, item 7, claim 2, 6, 18, 20, 21 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamamoto et al. as applied in claim 1.

Reconsideration is respectfully requested.

Claims 1-2, 6, 8-10, 15-18, 20-21 and 27

Claim 1, which is directed to an apparatus for controlling a linear compressor, recites "a peak detection unit detecting a peak of an output signal corresponding to the peak amplitude of the piston; ... and resetting maximum amplitude data of the piston of the linear compressor according to the detected peak of the output signal."

Yamamoto et al. discloses "an upper dead point position B which is the maximum value of an upper end position of the piston 14 is calculated as shown in cycle 1a in FIG. 7 in the upper dead point position calculation means 28." (See Yamamoto et al. at column 11, lines 6-9.) This means, contrary to the features of the present invention recited in claim 1 in which the peak amplitude of the piston is detected, in the Yamamoto et al. apparatus, the upper dead point position B (i.e., a position corresponding to a peak in the output signal) is calculated. (See also FIG. 6 of Yamamoto et al. at step 6.)

Thus, Yamamoto et al. does not disclose or suggest "a peak detection unit" and, furthermore, that maximum amplitude data is reset according to the detected peak of the output signal, because Yamamoto et al. calculates the upper dead point position of the piston.

Accordingly, claim 1 is submitted to be allowable for the above-mentioned reasons.

Independent claims 6, 8, 17-18, 20 and 27 are submitted to be allowable for reasons similar to those of claim 1, as well as for the additional recitations therein.

Claims 2, 9-10, 15-16 and 21, which depend from claims 1, 8, 18 and 20, are submitted to be allowable for the same reasons as their respective base claims, as well as for the additional recitations therein.

Claims 3 and 4

Applicant respectfully traverses this rejection and requests reconsideration.

Independent claim 3 is submitted to be allowable for reasons similar to those of claim 1, namely, the peak detection unit, as well as for the additional recitations therein.

Claim 3 includes further patentably distinguishing features not suggested by the cited art. That is, claim 3, which is directed to an apparatus for controlling a linear compressor, recites "a bridge unit having first and second coils serially connected to a ground, and first and second resistors connected in parallel with the first and second coils and serially connected to each other."

Yamamoto et al. discloses a displacement detecting section 14A in which "a differential transformer ...is connected in an axial direction of the piston 12A to detect a displacement of the piston 12A as a piston position signal such as an output voltage value of the differential transformer." (See Yamamoto et al. at column 18, lines 58-63.)

Thus, it is submitted that Yamamoto et al. does not disclose or even suggest "a bridge unit having first and second coils serially connected to a ground, and first and second resistors connected in parallel with the first and second coils and serially connected to each other" (as recited in claim 1), because Yamamoto et al. fails to even suggest a bridge unit and more particularly, does not discuss anything related to the above-mentioned configuration of the bridge unit of the present invention recited in claim 3.

Accordingly, claim 3 is further submitted to be allowable for the above-mentioned reasons.

Claim 4, which depends from claim 3, is submitted to be allowable for the same reasons as those of claim 3, as well as for the additional recitations therein, the Examiner having indicated that claim 4 includes allowable subject matter.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that affect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 7/24/03

By: Eric Berkowitz
Eric Berkowitz
Registration No. 44,030

1201 New York Avenue, NW,
Suite 700
Washington, D.C. 20001
(202) 434-1500
Facsimile: (202) 434-1501